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approach

The Naval Aviation Safety Review

TAILHOOK ISSUE

CV Landings

The State of the Art

By LCdr. Cliff Weber

THE LSO is faced with a paradox. "The safe and expeditious recovery of aircraft" defines his role. However, "safe" and "expeditious" seem to be mutually exclusive ends. We can adopt a goal of safely recovering aircraft, but taken to an extreme, this course will result in conservative waving strategies and unacceptable boarding rates. On the other hand, to focus primarily on the expeditious recovery of aircraft would probably increase the incidence of carrier landing mishaps, just what we try to prevent.

What have been some of the problem areas during the last two years? An analysis of the trends in carrier landing safety is highlighted, on the positive side, by a *marked* reduction in losses in aircraft, material and people.

However, there are a number of disturbing negative trends, which pervade the statistics. Since the beginning of 1988, while there have been no true ramp *strikes* per se, there have been 14 hook slaps, 11 of which were on smaller CVs (less than 14 feet of hook-to-ramp clearance for a normal recovery).

No aircraft has been immune. F-14s and F/A-18s lead the list with five each. There have been 19 lineup incidents and mishaps since early 1988, 12 on smaller decks. There have been

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seven A-6/EA-6B speedbrake incidents, and six F-14 line-drift mishaps, including one Class A and two Class Bs. The overall trend for lineups is improving, however. In 1987, there were 17 lineup-related incidents and mishaps. In the past nine months, there have been only three.

These statistical trends are incomplete without a look at some of the causes behind them. A partial list reveals that there are rarely new lessons learned.

– Pilot failed to respond to LSO calls.
– Aircrew failed to notify proper authority of aircraft degradation in a timely manner.
– Mishap pilot failed to use proper wave-off technique.
– Mishap pilot allowed cockpit distraction to degrade scan.
– Mishap pilot failed to make timely and appropriate corrections to glideslope deviations.
– Pilot attempted to recenter high ball at the ramp.
– LSO failed to issue a timely wave-off.
– Backup LSO failed to monitor lineup.
– LSO made a bad situation worse with a late lineup call.

Maintaining a high level of safety and proficiency in the CV landing environment is not going to be easy in the face of some huge obstacles – not the least of which are limited OPTAR and reduced embarked time.

Having to do more with less will place a tremendous strain on the pilot-LSO team. Our strengths are many – people, the equipment we use, our training and knowledge. The one constant which cannot yield is that standard we deem to be acceptable performance by pilots and LSOs. Arming ourselves with an awareness of trends and a positive, *creative* approach to training and to maintaining operational readiness will be large strides in the right direction. ◄

LCdr. Weber is the OIC of the Navy's LSO School.

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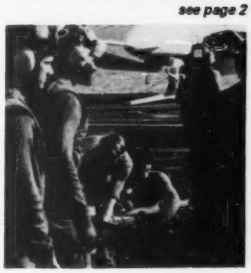

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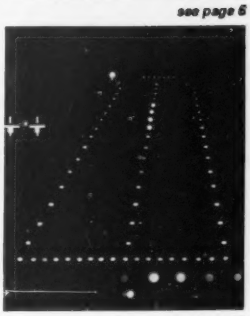

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PH3 Cruz

If It's Not One

GILDA Radner used to say, "It just goes to show you: If it's not one thing, it's another." In Naval Aviation we find
2 our seemingly stable and routine activities can quickly deteriorate.

We launched shortly after dark in our EA-6B Prowler on what was supposed to be a routine AIC hop with three F-14s. After an hour of intercepts, we headed back to the ship for tanking practice and recovery.

After checking through marshal, we switched to departure, who provided vectors to an orbiting KA-6. I spotted the tanker at 10 miles and started my rendezvous. Once joined, I was disappointed to see that I was No. 3 for the basket, behind two Tomcats. Our push time for recovery was fast approaching. Departure told us to break off from the tanker and switch to marshal.

"Rats," I said, to the ECMOs, "I really could have used a little night tanking practice."

After one turn in the marshal stack at 8,000, marshal told us to run inbound and "maintain angels and take speed 300."

"Here we go again, another creative Case III, CV-1 approach," I muttered. "I don't recall seeing this approach in CV-NATOPS."

I looked down at the fuel gauge and was reassured to see that I'd be at maximum trap weight when I landed. A full moon provided a view of the Indian Ocean that would warm any tailhooker's heart. Let's see. It's Friday, so there'll be pizza for mid-rats. I'll be aboard in just a few minutes.

We continued our approach. At 18 miles, I alerted approach that I was still at 8,000, about 5,000 feet higher that I should be for a standard approach. Approach directed me to 1,200, my final altitude to intercept the glideslope.

I made it to 1,200 at 11 miles, just in time to be told to dirty up and take my final approach speed. This was great. First they wanted faster than normal, now slower. The approach continued normally until one mile. I could almost smell the pizza waiting for me. At this point, I was taken out of the pattern so that a Hornet with a higher priority could get aboard.

After climbing to 1,200 feet, I looked down at the fuel. Still no problem. I had enough for at least two more looks at the ball before I had to tank. After I turned downwind, I got a 12-mile hook to approach course. I intercepted the final approach course of 140 degrees and was again told to slow to approach speed early.

At eight miles, approach began issuing headings 60 degrees off the final approach course to provide interval on the traffic ahead of me.

Fighting off the "leans," I intercepted the course and glideslope at three miles. I was working hard when the wave-off lights came on at half a mile. Foul deck. A yellow shirt had darted into the landing area.

I took stock of my situation on downwind. I had enough

Ten minutes later, smoke poured from our air conditioning. NATOPS procedures eliminated the smoke, and we headed toward the ship. I can't believe this airplane! It never stops; it just keeps . . . wait! What's that? No, that can't be a flickering port-engine fire light. Did my right-seater see it?

PH3 Cruz

Thing...

By Lt. Tim Miller

fuel, but I was beginning to wish I had had a few practice plugs at the tanker earlier. Approach now decided that a 3-mile hook to final was in order. (I don't recall seeing that one in CV-NATOPS, either.)

I got myself off to a decent start at three-quarters of a mile, but, again, it was not to be. A crowning high ball in close with some pitching deck thrown in combined to give me another night bolter for my logbook. Now I wished I had more gas.

Fortunately, the ship thought I should have more gas, too. The tanker on final cleaned up, climbed and waited for me on the downwind. I got my signal to tank, so I cleaned up and climbed to 2,000 feet. I raised the gear and turned to starboard to concentrate on the tanker close abeam at my 3 o'clock.

Suddenly, a master caution light got my attention.

"OK, let's see what the problem is, but keep an eye on the tanker," I told myself. I was relieved to see that it was just a port GEN light, indicating merely that I'd lost that generator. I returned to the tanker, but something told me to take another quick check in the cockpit. My left engine had begun to roll back. Gilda was right!

The left engine failure was not caused by any great catastrophe, although NATOPS still ruled out a restart on an engine failure of unknown origin. So, there I was, at night, single-engine, low on gas, in and out of clouds, and getting ready to tank for the first time in a long time. The ship told me to divert to NAS I.O., about 50 miles away, after taking all the tanker's available gas.

Who thinks about single-engine tanking, let alone briefs it? The aircraft doesn't perform normally; power anticipation becomes critical. After proving that a twin-engine KA-6D can outclimb a single-engine EA-6B, and after a few awkward stabs at the basket, I plugged and got fuel. We said thanks and headed for our divert where we made an uneventful field arrestment.

Our troops and parts arrived the next day. They replaced the fuel control unit and the generator. After a successful PMCF, we flew back aboard that afternoon.

That should be the end of the story, but it isn't. The day after we returned to the ship, I found myself scheduled to fly the same aircraft on its first night flight since the PMCF. I am not superstitious, and I gladly accepted the challenge.

The Prowler was sounding great when one of the ECMOs in the back seat said he smelled smoke. I removed my mask and could smell it, too. It seemed to be electrical fumes. We began NATOPS procedures and secured all unnecessary electrical equipment. The smoke disappeared. We told the ship that we could make our scheduled recovery time.

Ten minutes later, smoke poured from our air conditioning. NATOPS procedures eliminated the smoke, and we headed toward the ship. I can't believe this airplane! It never stops; it just keeps . . . wait! What's that? No, that can't be a flickering port- engine fire light. Did my right-seater see it? I asked him.

"No," he replied.

"Maybe I was wrong. Sorry."

"I saw that flicker," he said, and seconds later, we shut down the same engine that quit the other night. One thing after another . . .

With plenty of fuel, we again divert to the NAS for another night single-engine arrestment. Next morning we find that a catastrophic failure of the air-conditioning turbine, accompanied by a hot bleed-air leak, caused our problems. Fortunately, the fire sensors detected the heat before a fire started.

You've got to be ready for unanticipated events, like single-engine tanking. Knowing NATOPS and your systems helps. I stood on the flight line with the skipper, looking at our aircraft. We examined the port engine bay and its bleed air leak. Suddenly, the Prowler lurched toward us and went up onto its port main gear and nose gear with a loud, crunching sound. A tractor driver had driven into, and torn off, its right wingtip.

It just goes to show you, if it's not one thing . . . ◄

Lt. Miller is an EA-6B pilot with VAQ-137. He is a wing-qualified LSO and the squadron QA Officer.

Singed Tomcat

By Lt. Paul W. Akerlund

WE had just pulled out of our third liberty port and were trying to get back into the rhythm of normal ops. We had a light schedule. Most pilots were supposed to get a day touch-and-go, followed by a trap. Then, they'd be current and ready for night flying. I was the duty LSO for my squadron and was pumped up about getting back out on the platform for the first time in a week.

I was the controlling LSO for the first recovery, and it was colorful. Our team was ready, however. After debriefing the first recovery, I headed back to the platform to watch the second wave. I thought it couldn't get any worse than the first one. I was wrong.

I was the writer for this recovery, and the controlling LSO was wing-qualed. The backup LSO was the senior CAG LSO. Two experienced guys at the pickle. What could go wrong?

It was 20 minutes after sunset and was turning dark. On a Case III approach and three miles out, the F-14 was in sight, looking good. Suddenly, the controlling LSO said, "Hey! Why is this Tomcat putting out flares?"

As I looked, I thought it didn't look right, either. Then came the call from the cockpit. "213 at three miles, had a left fire light. Our left throttle is at idle and the light is out. We want to continue."

Now, everyone on the platform focused on the burning aircraft approaching the ship. At two miles, we could see the flames were getting worse. We all knew this was a one-shot situation. We quickly asked the aircrew to double-check their combined hydraulics.

They replied, "Good pressure."

"Roger, continue," the LSO said.

For what seemed like an eternity, the jet came toward us, single-engine, and on fire. After the ball call at half a mile, the left fire light relit, a distraction that didn't help the nugget pilot.

At the close-in position, the aircraft was slightly overpowered and looked as if it was going high and fast. Quick calls from the LSOs helped get the jet on deck the first time.

"Don't climb."

"Fly it down."

"DLC!"

The F-14 skipped the 2- and 3-wire, but caught the lucky-4 wire. As it went by us it looked like a laser had blasted a 12-inch diameter hole in the left daily door and started a fire. Actually, the starter was burning, trailing 5-foot-long, oil-fed flames. The ship's crash crew quickly extinguished the fire and saved the aircraft from further damage.

Everyone needs to be ready for one of these one-shot situations. In this case, successful first-pass performance was critical, as the aircraft probably wouldn't have survived a trip around the bounce pattern. ◄

Lt. Akerlund is an F-14 pilot with VF-2. He is the squadron Power Plants Officer and squadron LSO.

What Should We Tell Them?

By LCdr. Steve Dailey

LSO: F-14 at two miles, paddles.
Tomcat: Go ahead.
LSO: Roger, did you just drop a flare?
Tomcat: Negative, but we just got a fire warning light.
LSO: Roger, keep it coming.

IT was pitch black, which helped to accentuate the little balls of fire falling from the port side of the aircraft.

"Check throttle to idle, air source off," called the controlling LSO. The fire continued. Watching the proceedings, I couldn't help thinking that if this guy boltered, or waved off, and the fire didn't go out, the crew would have to eject.

"Paddles contact at a mile. Call the ball."

Should we tell him he's on fire? No, just keep him coming. No distractions. Just fly the ball. Halfway through the approach, the fire was still clearly visible as was the gaping hole in the fuselage. I didn't want anything to distract the aircrew. He had to get aboard on the first pass.

"A little power, a little right for lineup," said the LSO.

As the flaming Tomcat trapped we stared at the fire. The controlling LSO called out the boldface procedures for an engine fire on deck.

"Both fuel shut-off handles . . . pull. Both throttles . . . off. Shut it down!"

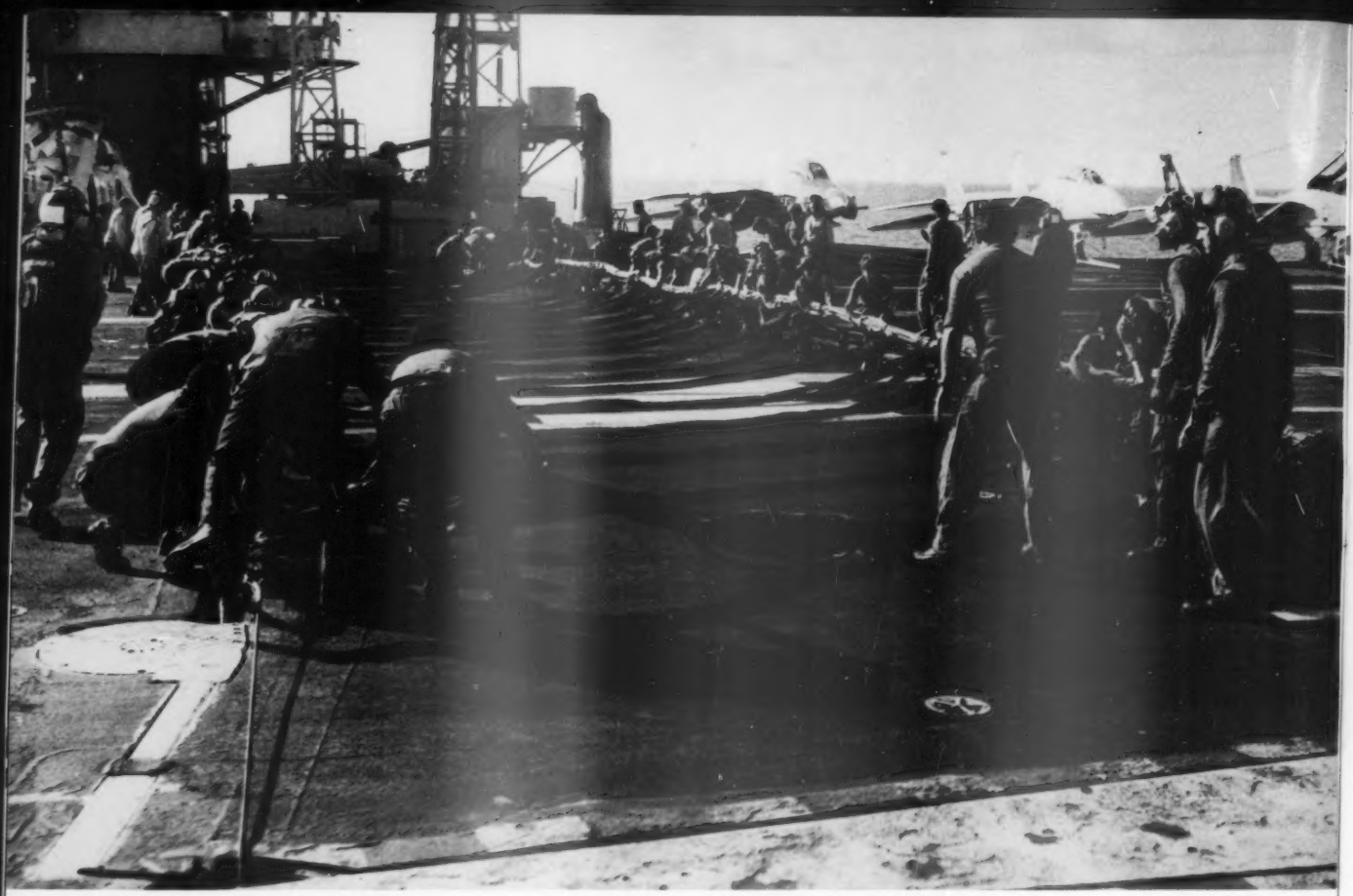
As the crash crew approached the burning aircraft, I thought I was going to see a big explosion. Within minutes, the fire was out and so was the crew.

In only 60 seconds we had gone from one extreme to the other, from normal ops to emergency, and back to normal ops. You can't buy training like that anywhere.

In an emergency, the pilot might have become preoccupied with engine shutdown procedures and master caution lights. At one mile, he had to concentrate on flying the ball. If the F-14 had blown up on the ball call, I would have felt responsible for not telling the crew about the fire. On the other hand, if I *had* told them and they had boltered single-engine as a result of being too concerned with the emergency, I would have also felt responsible for them ejecting in front of the ship.

I figured at one mile behind the boat, it was time for the crew to aviate and devote 100 percent concentration to landing the aircraft on the first pass. With the boldface procedures complete, we had to take our best shot at recovering the jet and putting the fire out. ◄

LCdr. Dailey is the senior LSO for CVW-2 in USS *Ranger* (CV-61).



PH3 Broadway

Rig the

A deck spotter may feel low because of the earlier designated wire, but the pilot must realize that flying high is not an option. A barricade approach must be the best and most disciplined pass of his career.

AFTER a standard night SSC hop, you can almost feel your rack's warm embrace as you start toward marshal. Unfortunately, the ride is rough since you're "popeye" and going through some good turbulence. Apparently the marshal stack is in a thunderstorm because, as you check in, a flash of light and a large bang goes off right in front of you. When you recover enough vision, you see that you have no HUD or instrument lights. After telling the CATCC rep about the problem, you hear, "99, Paddles, working 38 knots, 4-degree glideslope."

After two delta-6s, you make a normal approach. With your flashlight beginning to flicker, you break out at 800 feet and heave a sigh of relief.

"Tank, plus two," you call on the ball.

Correcting for a high-in-the-middle, you hear the controlling LSO say loudly, "Power, power!" The ball is darting downward and off the bottom of the lens. The deck is coming up, and you are already at mil as the wave-off lights come on. It's too late.

Barricade!

By LSO Class 3-89

As you touch down, you think, "Man, that was close." But you don't feel that comforting tug on your harness.

"Bolter, bolter!" the LSO calls.

Great! You can't believe it. You must have hook-skipped all four wires.

"307, take angels 1.2, turn downwind, report abeam."

"307, roger," you acknowledge.

"307, Paddles." Now what?

"307, go."

"You just had a hook slap," the LSO says, "we're rigging the barricade." Damn! You shouldn't have slept through the barricade brief.

The time you hear "You're a barricade!" should not be the first time you review procedures for a barricade engagement. Your squadron LSO should have thoroughly briefed you before you ever come out to the ship.

The LSO and the pilot will verify the aircraft's exact configuration, gross weight and final approach speed. Based on the weather, the LSO will recommend to the Air Boss whether to use the lens or MOVLAS. If the lens is used, the LSO will determine a new commanded hook-touchdown point, and verify the setting of a four-degree glideslope. Also, he will verify wind-over-deck requirements for the planned gross weight and approach speed. Many landing gear configurations require removing the cross-deck pendants for a barricade recovery. The controlling LSO – usually the CAG LSO – will brief the pilot on several items.

Deck motion. The pilot should use this information to temper his corrections, realizing the possible difficulties with lineup and glideslope control.

Wind-over-the-deck. The pilot should be aware of how low or high winds affect his approach. Many barricade scenarios require higher than normal winds-over-the-deck. The ship should place the wind as near optimum as possible.

Importance of lineup-drift control. The pilot must land on centerline with no established drift rate, since the barricade engine does not have the centering feature of the normal arresting gear.

Importance of airspeed control and maximum engaging speed. The barricade arresting gear engine is set specifically for the reported aircraft gross weight, and often, approach speeds and available wind-over-deck yield conditions close to the maximum for the barricade engaging speed. If you exceed these limits, the barricade may not be strong enough.

Importance of glideslope control to touchdown. Approaching aircraft must fly the glideslope because there is less clearance between the hook and the ramp for an earlier hook touchdown point. The earlier point guarantees that the aircraft is entirely on deck before it engages the barricade. A deck spotter may feel low because of the earlier designated wire, but the pilot must realize that flying high is not an option. A barricade approach must be the best and most disciplined pass of his career.

Loss of ball in-close. In close, the left barricade stanchion will momentarily block the pilot's view of the ball. Rely on LSO calls for glideslope information.

LSO voice calls. Response to all calls from the LSO is mandatory.

Cut. When the aircraft has the ramp made, the LSO will call "cut." At this time, secure engines to reduce the chances of a fire or of FODing an engine, and to minimize your speed when you engage the barricade. You can't go around.

Inability to make a late wave-off. After the ball call, don't take your own wave-off. A late wave-off significantly increases the probability of an in-flight engagement of the barricade. The LSO's wave-off window for a barricade approach is significantly further out than for a normal pass. The window of acceptable parameters is considerably smaller.

4-Degree glideslope. This glideslope allows the aircraft to touch down before the barricade on a slightly steeper glideslope while providing the required minimum of 8 feet of hook-to-ramp clearance.

Anyone is a candidate for a barricade engagement. Are you prepared? ◄

A Gene Kelly Kind of Day

By Lt. T.J. Walker

THE last hour of our four-hour alert slowly ticked by. We had given up all hope of getting airborne. We thought about grabbing some quick chow and heading back to the rack. With about five minutes to go, the 1MC blared, "Now launch the alert tanker!" We grabbed our gear and ran for the flight deck.

We climbed up the boarding ladder and closed the canopy. The huffer was turning, starting the engines. The deck crew broke us down. We taxied to the cat, took tension, a good wipeout.

"517 airborne."

Ten minutes ago we were minutes away from the rack. Now we were off the pointy end . . . and it was raining.

We hooked up with our thirsty fighters. The 1+45-hour cycle went quickly. Soon the signal came to RTB and we checked in overhead. We switched up UHF No. 2 to listen to approach – a mistake.

"Call the ball . . .

"Clara . . .

"Roger, Paddles contact . . . power, come left . . . power, power . . . Wave-off! Wave-off! . . ."

We switched off the approach frequency. The mood was a lot calmer listening to the dull static of tanker common. Time clicked slowly by. Fifty minutes later, we got the call to begin our approach. The rain beat on our canopy. Eight miles, dirty up, still in the clouds. It was raining hard. Lock on, intercept glideslope, fly the needles. Man, this rain was something else! Two miles, keep working the needles. The windshield air checked good. (I wondered which rocket scientist decided not to also put it on the BN's side.)

Three-quarters of a mile, call the ball.

"Clara." Stay on the needles.

"Paddles contact," the LSO called, "You're high. Bring it right. You're high . . . set 1,000 fpm. Right for lineup."

I still couldn't see a thing from my side of the cockpit, just a lot of rain. I hoped the guy next to me saw something. It must be OK. Paddles had us. We passed 200 feet. Back to the left. We were high.

I started to see something dark in front of us. It looked like the island on our right, where it's supposed to be.

"Right for lineup! Wave-off! Wave-off!"

I saw nothing but rain, lots of rain. The first thing I recognized was the red glow of the wave-off lights. They were close, and coming at us. Power's on; we're going to touch down anyway. This was bad. The wave-off lights disappeared off our left side. Too close. What was that thud?

We had hit something. All the cockpit indications were normal. Keep climbing. What happened? The ship told us to turn downwind and extend, something about the deck not being ready and we would require special handling. What did *that* mean? I didn't want to ask.

We were below dirty bingo. Here we go again. Five miles . . . still raining.

At three-quarters of a mile I saw the ship and called the ball. A little power, back to the right. A full stop. "Boy! We're sitting at a weird angle." The crewmen gave us the shutdown signal. The canopy came open. It was still raining.

The scary part came as we watched the playback on the PLAT. Someone was watching out for us. If we had been any lower, any further left, or drifting right instead of left . . .

We walked out to the flight deck, then to the hangar bay that afternoon to view the damage: one waist cat deck lamp missing, one crushed loudspeaker with a tire mark, one catwalk handrail with tire marks, one shredded aircraft tire, and one wheel-and-brake assembly waiting to be replaced. And, it was still raining!

Lt. Walker was a BN with VA-95. He has reported to Pensacola to begin pilot training.

Touring the Canadian Northwest, Eh?

By Lt. Gordon Oliver

IT is my first extended at-sea period. We are steaming toward NORPAC as I brief an opposed, low-level training hop over the snowy Canadian tundra. The weather's clear, with more than 30 miles visibility. After a standard Case I launch, we rendezvous overhead and head for the KC-10 tanker to top off. I am literally out of my seat as we streak over the Canadian countryside at 200 feet, just as if we're watching a "Great Outdoors" tourist video.

Off the route, we check back with Strike with fuel just above our fuel ladder. No problem? Wrong! After switching to marshal, we get an unexpected forecast.

"Mother's 300 feet, overcast, one-half mile in fog . . . 99 launch canceled. Stand by for new EATs . . ."

OK. Settle down. Start the checklist. ACLS/ICLS tested, pitot heat on . . . *fuel!* Oh, no! I was on my VFR fuel ladder which translated to 1,000 pounds below the Case III ladder. I was already looking at tank state on the ball. What now?

No gas nearby, blue water ops. I'd better make everything count. After being marshaled in the middle of the stack, we finally get our push time. Then another frantic call.

"99 delta 8, stand by . . ." What now?

"99 precision approach radar down. Expect surveillance approach . . ." Finally, a second push time.

"400 commencing, state 3.0" I call.

Switching to approach, I don't hear anything comforting.

"100, paddles, contact. You're lined up right . . . *wave off!*"

"213, take angels point six, left two . . ."

I double-check my ACLS/ICLS. Nothing. No needles, no bullseye. Wait, ASR mins are 600 feet. Ship's weather is 300! We are below mins. Flying a self-contained approach with the fuel gauge approaching tank state, I think again that this one has to count.

"400, three-quarters of a mile, call the ball."

I answer the LSO. "400, clara . . ."

"Paddles contact. You're a little high." There it is.

"Ball!" I radio.

"Roger, ball." Trap. Whew!

The weather deteriorated unexpectedly. As a result, the fuel ladder I had established before the flight was grossly inadequate. To top it off, the ship, while conducting "necessary" power plant drills, had secured 400 Hz power and the equipment required to safely recover the air wing.

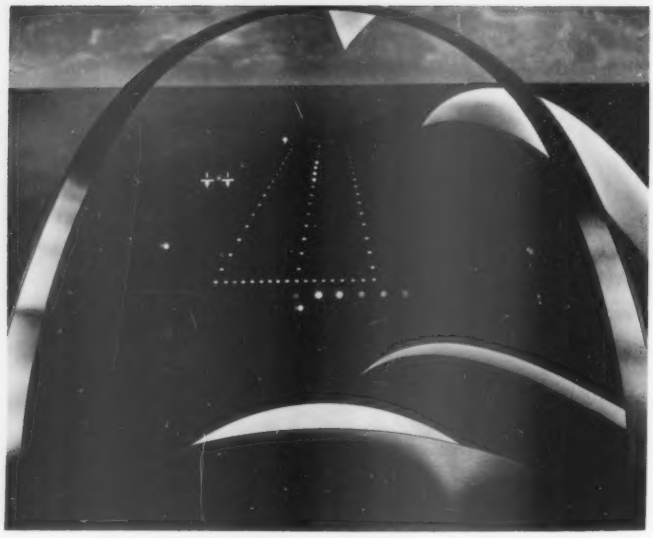
Besides losing a few more hairs from my already balding scalp, I learned first-hand that when things start to go bad, beyond your control, it's good to have a prebriefed contingency plan. ◄

Lt. Oliver is an A-7E pilot with VA-27.

1-800-HOT-SFTY is one call that will always get through. It's the Safety Center's hot line, and we have the answers to all your safety questions.

Be the Laser

By Lt. Dave Howe



RECENTLY, I spent two weeks at the Naval Air Engineering Center in Lakehurst, N. J., evaluating the Improved Carrier Optical Landing System (ICOLS). ICOLS incorporates five subsystems:

– a Fresnel lens with improved sensitivity
– a fore and aft long-range glideslope indicator
– a crossbar long-range lineup indicator
– a laser glideslope indicator
– a laser centerline localizer

The tests were conducted during the day and at night using several types of carrier-based aircraft. Ten approaches per sortie were flown using the various systems, at different ranges, down to touch-and-go landings.

Because the two long-range indicators were not well-received by the test group and probably won't be seen by fleet aviators, I won't discuss them here. Instead, let me concentrate on the other three subsystems.

The new Fresnel lens will either be a larger version of the current Fresnel lens system (10 cells instead of five) or an even better version, the CAI MOD 2, which uses fiber optics and high-quality lenses that vastly improve the ball resolution. The lens used in the evaluation was the 10-cell version.

The increased sensitivity allows pilots to see slight deviations in glideslope at a significantly increased range and enables them to start flying the ball at a mile and a quarter instead of the normal three-quarters of a mile. Since the average pilot does not usually see and react to a deviation until he is a half-ball high or low, the increased sensitivity would allow him to react when, on the current lens, he would see little or no deviation.

The laser glideslope indicator and the laser centerline localizer are single-point sources that provide accurate and usable information out to the limits of visibility, usually more than 10 miles. The lasers illuminate vertical and horizontal corridors with amber, red, green, flashing red and flashing green light.

The tests showed that there should be no doubt in a pilot's mind which color he is seeing or which indicator he's referencing, regardless of range. If he's low and lined up left, he'll see two distinct red lights. If he's low and right, he should see a red and a green. If the airplane gets further out of parameters, the light would flash the appropriate color. "On and on" would show as two amber lights. The laser glideslope also provides excellent pushover cues as the airplane drives in at 1,200 feet.

The combination of the laser glideslope, laser centerline localizer, and the improved Fresnel lens could make the "eye test" of flying the ball a thing of the past. With the new system, safety would be improved and boarding rate could, quite conceivably, approach 100 percent.

The only problem I foresee with the new technologies is the following scene:

(Paddles enters the ready room for an LSO debrief)

Paddles: "Who was in 103?"

Dangerboy: "I was."

Paddles: "Let's see . . . SRD.X HIM CD.DLIC *LL* NO-GRADE 3-WIRE."

Dangerboy: "NO-GRADE?! I caught a 3-wire!"

Paddles: " So did the rest of the recovery. We had to target the 2-wire for awhile to give the 3-wire a rest. You were high in the middle."

Dangerboy: "I was only three balls high!"

Paddles: "I know, but you landed *THREE FEET LEFT !*"

We could live with this. ◄

Lt. Howe is an instructor at the LSO School, an FRS instructor pilot and an LSO with VF-101.

ICOLS

A IMPROVED CARRIER OPTICAL LANDING SYSTEM LENS *(ICOLS LENS)*

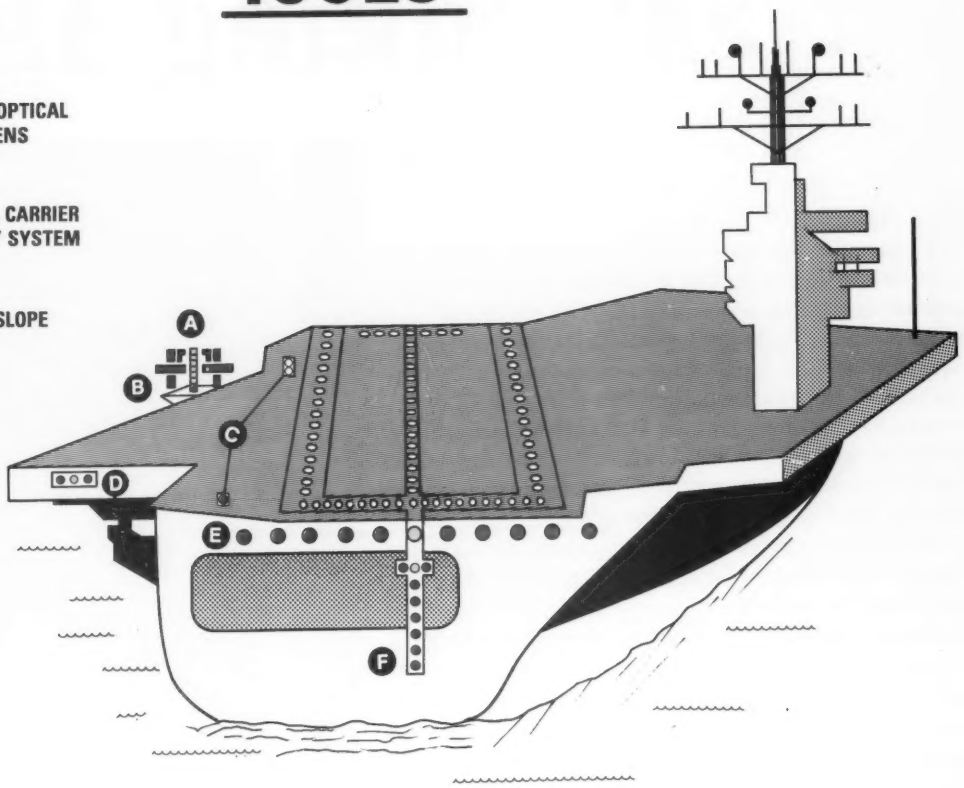
B AUGMENTED VISUAL CARRIER AIRCRAFT RECOVERY SYSTEM *(AVCARS)*

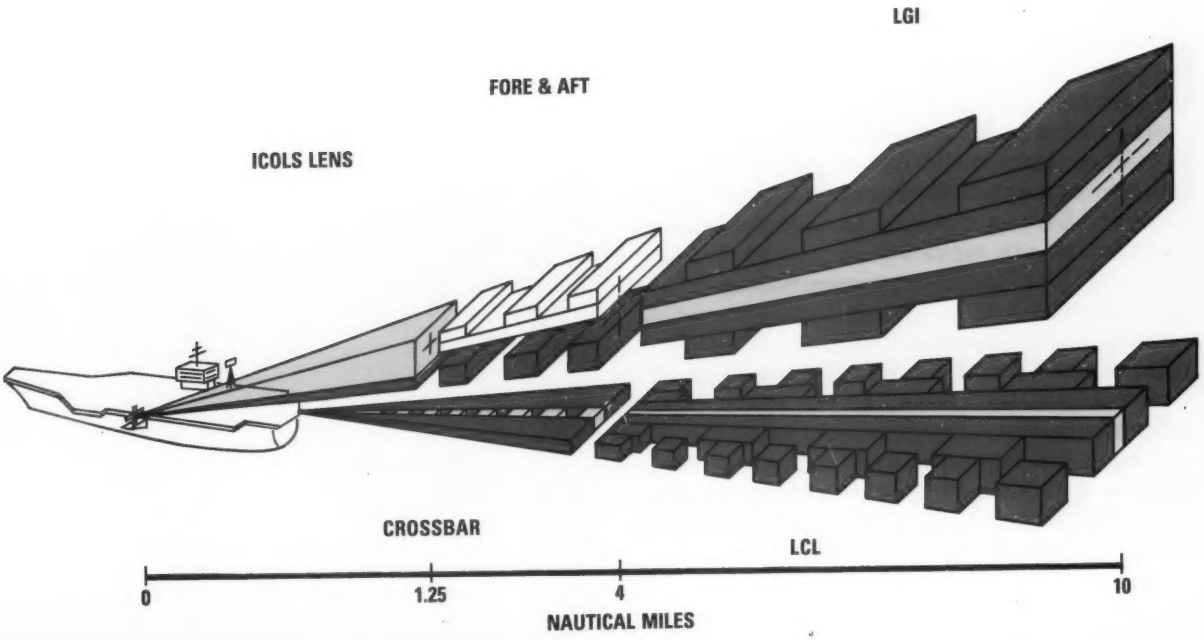
C FORE AND AFT GLIDESLOPE INDICATOR *(FORE AND AFT)*

D LASER GLIDESLOPE INDICATOR *(LGI)*

E CROSSBAR LINEUP SYSTEM *(CROSSBAR)*

F LASER CENTERLINE LOCALIZER *(LCL)*





Breaking Down t

By Lt. Peter M. Hunt

MID-CRUISE in the North Arabian Sea. Sporadic rain showers have settled the dust of the milk bowl for the first time in weeks. Visibility is great. The weather has raised spirits on the flight deck, but hump day was only a week ago and rain in the States beats sun in the I.O.

Our Intruder is spotted behind cat 3, with its tail out over the LSO platform. It's the first launch of the day, with a crowded deck, but at least we're close to the cats. The sooner we get airborne, the sooner we can get to the nearby friendly's spar, drop our bombs and maybe get some pictures of the "contacts of interest" that are supposed to be in the area.

The jets on the fantail are all aligned with their exhausts facing outboard with one notable exception: An F-14 is just aft of cat 3 pointing forward, 90 degrees off from our spot. His position puts his exhaust directly on our canopy. The plane captain explains the game plan to me. The Tomcat starts first. He could have elaborated, but I'm sure he has the big picture. One of our line chiefs is supervising the start-up, and yellow shirts are everywhere.

We elect to strap in, close the canopy and wait out the F-14's start-up and taxi. Naturally, as soon as we are strapped in, a huffer is connected, and our plane captain asks if we are ready to crank up. Change in plan. Great – we can avoid the Tomcat's exhaust altogether and beat our buds to the cat.

As I learned later, the F-14 was supposed to hold his start until we were finished. Our line crew thought that meant finished with checks and taxi. The F-14's crew thought it meant finished with engine start. As soon as our huffer is disconnected, the Turkey's engines start winding up, a scant 30 feet from our A-6.

A little miscommunication has created an uncomfortable situation, but we should be able to correct things. The plane captain continues his checks. The first time I notice the violence of the F-14's jet wash is when an ordie stows the pins in my boarding ladder while getting blown around pretty good. Unfortunately, he wasn't the only one. The A-6, known for its great beauty in most circles, has an uncom-

the Plane Captains

PH2 Eddie E. Cordero

monly large nose, which does not enhance downward visibility.

I watched the yellow shirt as the plane captains broke us down. The Tomcat's exhaust, in turn, broke *them* down. I learned later that one crewman was nearly blown directly into our intake, but he was saved by the line chief who made a fast grab for him. Another man was blown toward the stern of the ship only 30 feet away. He saved himself by grabbing a more stable shipmate's leg. We taxied, launched and had a great hop, completely oblivious to this near-fatal display of flight deck miscoordination.

Sometimes signals get crossed, but when they do, an immediate re-evaluation of the situation should be made by the line chief. How will a Tomcat's early start affect my plane captains? Can they proceed safely? What about the yellow shirts? They may act like gods on the flight deck, but they are fallible and subject to the same pressures as the rest of us. The flight deck is not the place for blind, one-dimensional assessments of the situation by aircrew or maintenance personnel.

The Boss is ultimately responsible for the safe start sequence. The handler is responsible for the safe spotting of the deck. But the flight deck is far too dynamic an environment to trust all the details to go as planned.

Of course, there is a final, obvious cross-check for safety: the aircrew. All the circumstances in the world can point toward disaster, but if the pilot does not press that start button or refuses to release the parking brake, events go no further. In this case, a simple "hold" signal to the ordie when we saw him struggling – or even better, a heads-up call to the Boss – could have stopped everything.

Although I couldn't see the plane captains below my aircraft, I should have realized that breaking down my A-6 at that point was too dangerous. I could have also told a yellow shirt, too.

I assumed that either the chief, the yellow shirt, the plane captain or "somebody" had the situation under control. It was my intake that might have killed that plane captain. If nothing else, my hand was on the controls to that engine.

Lt. Hunt is an A-6 pilot with VA-145. He is the squadron's Aircraft Division Officer.

Back In the Saddle Again

By LCdr. R.P. Wheeler

GOOD brief. Thorough. My pilot and I covered everything. Then, we suited up with 11 of our closest friends in the paraloft, which is about the size of a telephone booth. Good preflight, too. With the aircraft's tail over the water, we check what we can. So far, so good. But after the start-up, as the deck crew breaks us down, things begin to fall apart.

We rush through the takeoff checklists as we snake our way from the bow to cat 3. On the cat, full power, wipeout.

"Are you ready?" asks my pilot.

"Sure, I'm ready," I answer.

"Saluting."

Pause, pause, *wham!* That's where I stayed, mentally – on the cat. I had no idea what was happening until well into the rendezvous at 14,000.

I had been out of a squadron for nearly eight years, an increasingly common situation these days. After a tour in Washington, I served as assistant air ops officer on a CVN, followed by tours on an admiral's staff, and as an instructor in an FRS.

Although I had tried to remain current in the A-6, I hadn't flown from a carrier in a long, *long* time. The most detailed brief cannot fully prepare you for a standard CV launch and recovery. As a senior Cat II instructor BN, I skipped the CQ phase of the abbreviated FRS syllabus and bustered back to the boat and my department head tour.

We expect and compensate for this experience in the training command and for first-tour guys. Cat I and Cat II pilots invariably get FRS CQ which helps. Cat II BNs can slip through the cracks. This could be dangerous. Being as far behind the airplane as I was made me terribly uncomfortable. I was no help to my pilot for the first third of the hop. Fortunately, we didn't have an emergency.

Second tour, long-time-out-of-the-cockpit aviators beware. Try to get some relatively low-pressure CV time in the FRS CQ phase. Be prepared for not only the mental and physical shock of carrier flying, but also for being significantly behind the airplane. Talk to your crewmate about it. Don't be surprised if it takes you 15 hops before you're up to snuff again. ◄

LCdr. Wheeler is the Maintenance Officer for VA-95.

Needles To the Moon

By Ltjg. Jeffery L. Hunt

THE night was clear and bright as the full moon illuminated the velvet-smooth Northern Pacific. Only a thin, scattered layer of clouds obstructed our view of the dark ocean below. I figured once we descended below the clouds, we would be able to pick up the ship easily.

The beautiful night, pleasant flying conditions and reassuring hum of our Hawkeye's engines caused me to drop my guard. I hadn't seen conditions like this since leaving home. Our deployment had taken us into the harsh environment of the Gulf of Alaska with its cold, gusty winds, frigid temperatures and high seas.

Our approach started easily enough when our ACLS needles appeared just outside three miles, requiring us to fly up and slightly to the right. I reported the needles to the controller, and he answered, "Concur, continue Mode II."

I felt myself relaxing as our veteran aircraft commander eased the aircraft onto the glide path. Great, another 4.5 hours in the logbook.

A few seconds later, as I scanned the engine and flight instruments, I sensed something was out of place. At first, I couldn't decide what was wrong, but there was something definitely different about this approach. I glanced outside toward the ship. Yes, it was there, but from my seat something didn't *look* right. I strained to adjust to the red glow of my instruments.

My mind said, "1,400 feet MSL, approaching 1.5 miles behind the ship." Yet, our ACLS needles continued to tell us to fly up. Was my altimeter correct? Earlier, it had differed from the pilot's altimeter. No, this time, our dials agreed. Maybe both altimeters were wrong. No, the radar altimeter also indicated 1,400 feet.

I told the pilot, and he began a rapid descent toward the glideslope. Despite his best efforts, at one mile, we were still too high.

Before I could report clara at the ball call, the LSOs punched the wave-off lights, the pilot initiated a wave-off, and we were on our way around the pattern again.

No problem, right? Wrong. Just imagine what might have happened if the needles had frozen in the fly-down position and we tried to follow them. The Pk would have been 1.0. ACLS needles are a terrific tool in helping pilots during night or bad-weather approaches and recoveries. But, like every tool, the ACLS can malfunction, sometimes with disastrous results.

Always fly a solid, self-contained approach during IFR. Needles can augment a self-contained approach, but can't replace it. Verify your position regularly during the approach.

If you fly a multicrewed aircraft, back up the pilot at the controls. Even if he doesn't want verbal updates during an approach, keep track of the aircraft's position, speed and configuration for a specific approach and tell the pilot when something seems out of place. ◄

Ltjg. Hunt is an E-2C pilot with VAW-114.

Too Close for Comfort

By Lt. Paul McKeon

IT was our first trip to the boat in six months. I was scheduled to fly in the right front seat (ECMO 1) for the always-fun night CQ. We thoroughly discussed procedures and emergencies.

After three uneventful traps, our EA-6B was spotted aft of the island for hot refueling. We noticed a bit more confusion on the flight deck than usual. The taxi directors seemed to be having trouble taxiing jets around, but they managed. It didn't occur to me that the people on the flight deck might also be rusty, or even new at their jobs. I just thought it was one of those nights with inevitable delays.

As soon as we finished refueling, the crew broke our plane down, and a yellow shirt signaled us to taxi forward. I was still stowing my gear, and I had my head in the cockpit. Out of the corner of my eye, I detected a quick movement close to the right side of our aircraft. I saw two people darting forward to pick up a pile of tie-down chains that were lying on the deck. The chains were still attached to a padeye, and the men had trouble picking them up.

In the meantime, our Prowler was still moving forward and to the right, placing the two men directly in front of our right mainmount. At first, I thought that the yellow shirt would see the two men and tell us to stop, or that the two deck crewmen would see us coming and get out of the way. I was wrong on both counts.

The crewmen were still trying to remove the chains as I yelled "Stop!" over the ICS and my pilot stomped on the brakes. We stopped just a few feet from the men, still oblivious to their danger.

I quickly explained the problem to the pilot while the yellow shirt kept signaling us forward. We pointed to the men on the deck, and the director finally understood. He ran over to help remove the chains. He yelled something to them and pointed toward our plane. They seemed stunned to find our jet hovering over them – a very close call, indeed.

Don't expect the yellow shirts to see everything, especially at night. Also, don't assume that flight deck crewmen will see your aircraft while you're taxiing. They might be looking the other way or trying to avoid someone else's jet blast – or they could be just daydreaming.

Another golden rule is that everyone's head has to be out of the cockpit during taxi. All checklists and equipment checks must be completed, or put on hold until the aircraft stops. Be defensive and, when in doubt, *stop* and sort things out later.

Finally, remember that for the first few days of any underway period, the flight deck personnel will be just as rusty as the aviators, and everyone needs to be extra vigilant. ◄

Lt. McKeon flies with VAQ-131.

Ignorance Is Bliss

By Cdr. J. Worthington

WHAT'S the big deal? We'll just follow NATOPS, pull the appropriate CBs, and come aboard flaps down, no slats. Seems to me there was a warning about keeping your airspeed up to prevent abrupt pitchup before a stall. No problem, my trusty BN will break out the PCL and refresh my memory. What was the recommended AOA? Nineteen, 20, 21 units? I never could keep them straight. Why is the skipper on the radio going over the procedures? He still thinks I'm a nugget. I've got 1,200 hours in T-2s, and 250 hours in A-6s. That SERGRAD tour taught me how to deal with some pretty hairy situations.

Twenty minutes ago, our routine bomb-the-spar mission had been interrupted by my BN glancing at the right wing.

"The slat is history!"

"What?"

"The slat ain't there, partner," he said, "We lost it sometime during the last delivery." A quick look at the left wing confirmed that its slat was still there, but our right slat was gone. We pointed the nose toward Mother and got on the radio to our rep. Blue water ops in the I.O. made the decision to bring us aboard much easier.

Now, my BN says I have to fly the approach faster, 19 units AOA. Piece of cake. Approach speed will be about what I'm used to, a little faster, but my airspeed control has always been plus or minus two units AOA. There's "Ichiban" on the radio, again. Enough is enough, Skipper. We can handle this approach. Guaranteed OK with this much attention. Paddles, you're mine!

Geez, two bolters. We keep hook skipping. After the last one, a squadronmate comes up and asks how she was handling. The controls are heavy on the bolter. It feels like I have little or no pitch control, maybe because we were fast.

I tell my BN that we are getting aboard this time. I'll ease power in the wires and set the hook. We'd never catch a wire in the flat, nose-down attitude that 19 units would give us. Setting the hook would do it.

As the aircraft comes across the ramp, I let the ball sag and start to catch it with my nose to set the hook. Immediately, the right wing stalls and violently goes right wing down. The aircraft slams onto the deck on the right mainmount, nearly striking the right wing tip on the deck. Miraculously, the hook catches a wire and prevents the inevitable head-long plunge into the six-pack. We are safely aboard with nothing injured except my pride.

My cavalier attitude toward our emergency placed the aircraft on the edge of its aerodynamic envelope. More mature and experienced heads had tried to alert me to the reduced margin of safety. Later, in my stateroom, realizing how close we had come to a serious mishap shook me to the core. Ignorance was not bliss. ◄

Cdr. Worthington is the CO of VA-95.

Left to right: AMSAN Alexander, AMH3 Wheelus, AW2(AW) Betts, Lt. Tomlin, Lt. Goodly. Missing: AMHC(AW) Eggemeyer.

Lt. Baxter Goodly
Lt. Charles Tomlin
AMHC(AW) Larry Eggemeyer
AW2(AW) Robert Betts
AMH3 Charlie Wheelus, Jr.
AMSAN Joey Alexander
HS-15

After completing a functional check flight, Red Lion 611 assumed primary plane guard for USS *Forrestal* (CV-59). As the crew lowered their H-3's landing gear for recovery, the aircraft's utility hydraulic pressure fell to zero.

Lt. Goodly (HAC) and Lt. Tomlin (copilot) immediately determined that both main landing gear had failed to extend. Following NATOPS, the crew flew the aircraft to a hover over the flight deck to use the emergency blowdown system.

AMSAN Alexander (LSE) directed the helicopter to a steady hover. When the blowdown procedures didn't extend the left main gear, he told the pilots and guided Lt. Goodly to a low hover. Then he directed AMHC(AW) Eggemeyer and AMH3 Wheelus under the hovering aircraft.

While Lt. Goodly, with AMH3 Betts's directions from the after station, maintained a 5-foot hover over the deck, AMHC(AW) Eggemeyer and AMH3 Wheelus disengaged the up-lock pin, manually pulled the main gear down into the locked position, and installed the safety pin. The H-3 landed safely.

Lt. J.L. Muir
VA-72

Lt. Muir was element lead on a 300-mile long-range strike from USS *John F. Kennedy* (CV-67). As he approached the Vieques target complex, he saw hydraulic fluctuations and the loss of PC-2 pressure in his

BRAVO ZULU

A-7E. He diverted to NAS Roosevelt Roads, 20 miles to the west, but his flight controls became sluggish. Lt. Muir saw the PC-3 system pressure rapidly drop to zero, and he extended the emergency power package (EPP) to regain control of the aircraft.

The PC-3 system's pressure stabilized well below normal, and because of asymmetrical limitations, Lt. Muir chose not to jettison his external stores.

He extended the landing gear by emergency procedures and made an arresting landing. With numerous low-fuel-state aircraft airborne, he cleared the runway using the emergency brake system and shut down.

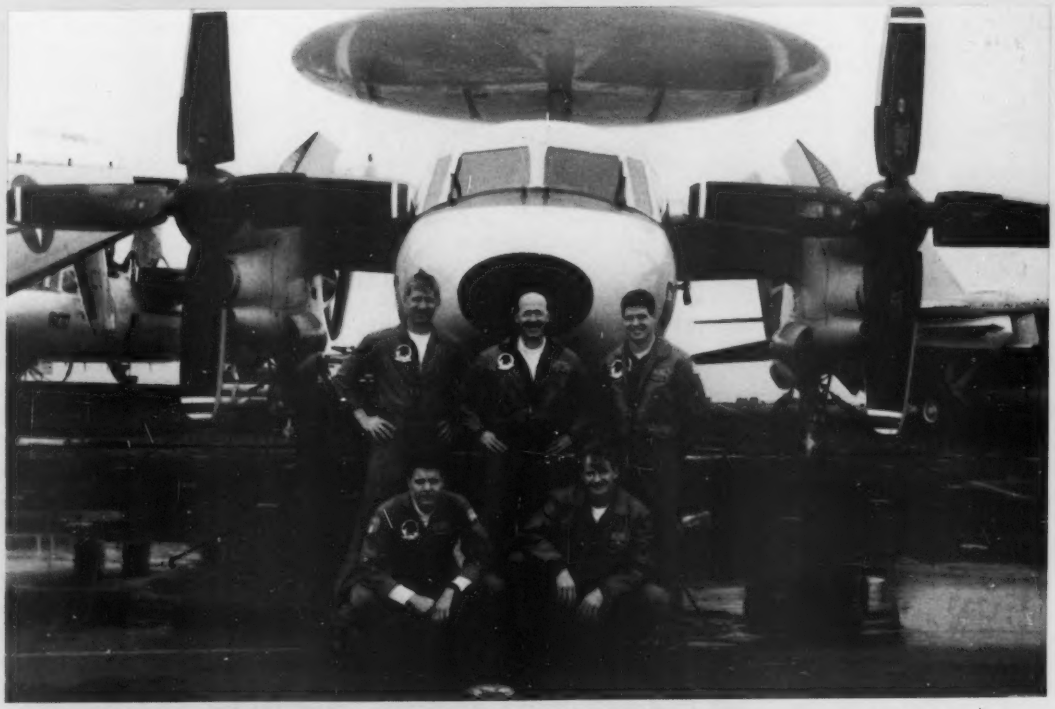
Postflight inspection revealed the PC-2 system had lost hydrulic fluid because a quick-disconnect fitting broke. Loss of the PC-3 system was due to catastrophic failure of the starter overspeed governor attached to the PC-3 pump. This combined hydraulic failure severely degrades the A-7's flight control system.

Cdr. Walt Joller
LCdr. Mike Wertz
Lt. Rush Williams
Ens. Steve Ouellette
Ens. Steve Payne
VAW-113

Black Eagle 601 was returning to USS *Independence* (CV-62) after a routine AEW/AIC mission. LCdr. Wertz (CAPC) and Lt. Williams (copilot) noticed problems with the pitch-feel tracking as they approached the ramp. While trying to control the pitch oscillations, LCdr. Wertz also lost rudder authority as the two-degree rudder stops engaged.

Assisted by Lt. Williams' airspeed and VSI calls, LCdr. Wertz smoothly added power and raised the gear, using differential power to control yaw. He slowly accelerated the E-2C to an airspeed at which he could raise the flaps and start a climb. Using NATOPS and the squadron representative in the CIC, the Hawkeye crew was able to trouble-shoot the compound emergency.

Assisted by Cdr. Joller (CICO), Ens. Ouellette (ACO) and Ens. Payne (RO), the pilots regained full rudder authority and made a successful arrestment. ◄



Left to right, bottom row: Ens. Steven L. Ouellette, LCdr. Michael R. Wertz, standing: Lt. Rush P. Williams, III; Cdr. Walter C. Joller, Jr.; Ens. Stephen E. Payne

They're Both Ugly!

By Lt. Carroll Lefon

One of his pylon lights on the port side – our side – was burned out, and the other was so dim that we didn't notice its color. And his starboard? No excuses, except that we were told to expect an A-6 and an A-6 was what we thought we saw.

NIGHTTIME in the I.O. Our LSO team had been working together for two of our four months at sea. The deck was relatively steady, and the springtime haze reduced visibility to two miles. One of our fighters was having trouble getting aboard, and between bolters, we discussed his problems during an in-flight debrief.

"A-6 Intruder, 506, at two miles," the Air Boss called. A few moments later, we saw him, at a mile-and-a-quarter. The backup LSO changed frequencies from Button 14 to Button 15.

"Gear and lens set, A-6," called the hook spotter, and the deck status light went clear.

As the A-6 closed to three-quarters of a mile, there was silence. We thought we might have missed the ball call or that CATCC had not asked for it. My backup asked, "Got a ball?" as the Intruder settled rapidly and drifted well left.

I didn't want to wait for him to go clara low, so I jumped in with, "Paddles contact. You're low, lined up left." He corrected back to lineup and flattened out a little. He remained well low approaching the wave-off window.

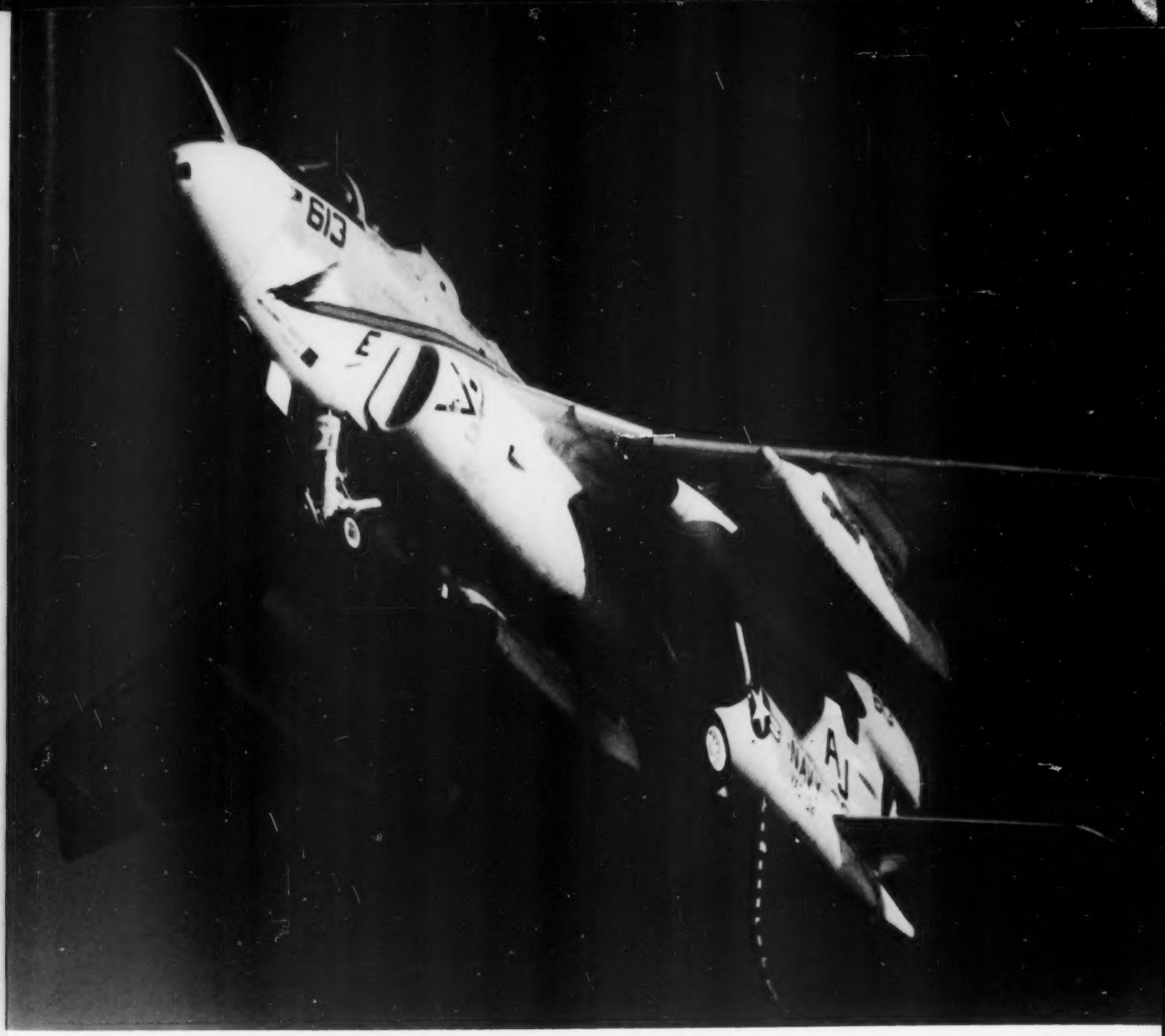
I re-emphasized, "You're *low*." Then, I said, "You're *low, power*."

My first CAG LSO had preached that a guy gets no more than three calls, and if he hasn't responded by then, he wasn't listening and needed another look. Frustrated by his lack of response, I hit the pickle.

"Wave off, *wave off!*" It seemed like one of those nightmarish ramp-strike videos you see at LSO School where the pilot seems bent on killing himself. As he crossed the ramp, we were all stunned to see that our "silent" A-6 Intruder was really an EA-6B Prowler!

Now, although the A-6 and EA-6B may seem superficially alike, they have significant differences that could spell disaster. The Prowler weighs around 45,000 pounds at max trap, and approaches at 129 knots. The Intruder weighs 36,000 pounds and comes aboard at 122 knots. A Prowler trapping on an A-6 weight setting would, at least, two-block the arresting gear, and probably part the wire, killing flight deck crewmen, and perhaps one or more of the aircrew. This was no small mistake to be debriefed quietly off the platform.

We reconstructed the chain of events that led to this near-disaster. We discovered that an A-6 had been turned out of final to make room for the priority Tomcat in the bolter pattern. This change resulted in two consecutive aircraft – the fighter and the Prowler – on Button 14, not unusual in itself, but a factor as events progressed. CATCC couldn't talk to the Prowler because we were talking to the Tomcat. Somehow, the fact that our second aircraft on final had been turned out had not been passed from CATCC to Prifly, the arresting gear rooms and the LSO platform. The hook spotter gave us Button 15, and he also told us the gear and lens were set for an A-6. At the point where we normally would have expected a ball call, our "A-6" deviated significantly from parameters, and I started to talk the pilot down *on the wrong frequency*. Only the fact that he was low, because of the lower hook-to-eye value of the A-6 lens setting and because he was "finessing" a low ball, resulted in a technique wave-off that saved the day.



"Wait a minute," I hear you former paddles saying, "what about his pylon lights?" One of his pylon lights on the port side – our side – was burned out, and the other was so dim that we didn't notice its color. And his starboard wing? No excuse, except that we were told to expect an A-6 and an A-6 was what we *thought* we saw. At night, to our peril, expectations sometimes replace perceptions.

"What about the pilot who continued his approach without hearing a "Roger, ball"? It turned out that the backup LSO had given him a cut-lights signal during my talk-down, clearing him to continue.

It's not hard to see that luck and glideslope geometry played more of a part here than competence. What if an unlucky Prowler pilot had flown a ball high, correcting only at the ramp, inside the wave-off window and unable to hear our frantic power calls? The MIR would have correctly cited "LSO error" among other things.

Lt. Lefon is an F/A-18 pilot with VFA-25. He is a squadron LSO.

"Brief on Guard. Everything Else Is SOP"

By LCdr. Guy L. Varland

AS I checked into my squadron, I commented that it would take a week to finish the SOP. That remark earned me the chance to rewrite it. The Standard Operating Procedures (SOP) manual is one of the most important publications for a squadron, and I relearned several things.

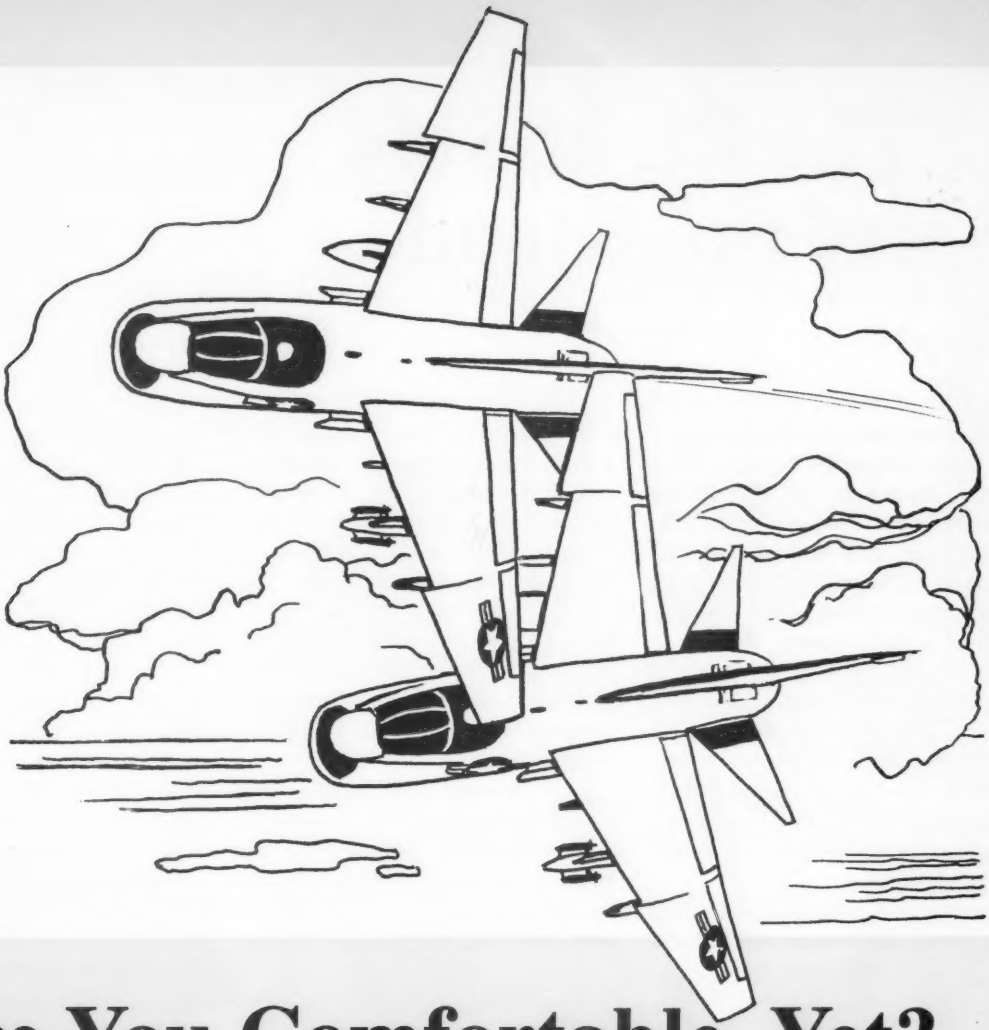
The SOP's length is a delicate subject. Determining what was worthy of remaining and what should be discarded was difficult and controversial. If you make a "check-six" document that covers every aspect of flying in enough painful detail to satisfy any mishap board, no one will read it. Squadrons with an SOP that is too brief will force flight leaders to conduct marathon briefs, plugging the holes.

Squadrons should establish ways of reviewing the current SOP or the proposed changes to it. Whether it's a tactics board composed of key people, or the standard chop chain, discussion of the changes makes for more informed decisions.

SOPs from squadrons flying the same aircraft type should be compared. Sister squadrons won't have identical SOPs, but coordination within the wing will be easier if basic and tactical SOPs are similar. Like NATOPs, the SOP can't, and shouldn't, address every situation. But, the SOP should be followed, or changed.

The SOP becomes a worthless document when the command pays lip service to it and allows blatant violations. Our squadron looks to the CO, XO and department heads for more than money or liberty. They want to know that the rules of the road are well thought out, and meaningful. Supervision and immediate feedback will keep the learning curve moving up. It all begins with a living SOP. ◄

LCdr. Varland is an F/A-18 pilot with VFA-83. He is the squadron Safety Officer.



Are You Comfortable, Yet?

By Lt. Eric Disher

AFTER two-and-a-half months on cruise, it's natural to feel salty. But that rising comfort level can catch you off guard – and usually does.

Our air wing was itching to stretch its muscles in the overhead pattern. The LSOs were getting liberal on grades and cutting some slack for any aircraft that got lost in vapors in the break. For most people, however, this meant wide patterns and long-in-the groove approaches.

Our aggressive pattern would affect the last recovery tanker. The last aircraft down would usually spin with an aircraft at the 180, so they could come back and break before the stern. This method really pushed the edge of the envelope, especially considering all tankers are G-limited. So, what's the big deal if your pattern isn't normal? If you look good, that's all that counts, right?

Another typical Case I, zip-lip recovery. An E-2 is in the break, and there are two more A-7 mission tankers to recover. The first A-7 decides to spin with the E-2 at the 180. No big deal. The second A-7 comes in separately and breaks a mile upwind while the E-2 rolls through the 45-degree position.

Meanwhile, the first A-7 is at full throttle, heading for the ship, his chance to look hot in the break. At 490 knots, he breaks right at the stern. To keep his turn in, he goes belly-up to the A-7 on downwind, the one he obviously didn't see – or even look for. After three urgent calls from the air boss and LSO, he avoids a midair.

Nice weather, standard operations. Why do these things happen? ◄

Lt. Disher flew A-6s with VA-165 and was a squadron LSO. He is currently flying A-6s and A-4s with VX-5 and is their ASO.

The Right Side of the Island

By Lt. Andrew Bilton-Smith

AFTER a good-deal trip to the beach, we launched back to the ship for a night trap. It had been seven days since my last trap, day or night. My experienced BN and I briefed with our leader. The weather was VFR and expected to remain so. We flew directly to the boat and checked in with marshal. I was ready for a good recovery.

The first F-14s crossed the ramp and suddenly, all expected approach times were slid. It didn't occur to me that the weather had deteriorated to 200 and one-half, and that we should rethink our approach procedures. I had never experienced bad weather below 400 feet at the ship.

By the time we started down the pipe, it was black because of the delays of multiple wave-offs and bolters. When we checked in on final, we got the first indication that the weather was actually at minimums. The LSOs were working hard and so were the aircrews – some on their third try with others on the tanker. We began a normal approach, except for one minor glitch: half the time I couldn't hear anything on the radios or ICS because of a short in my mask. My BN set up the heading bug for me and backed up his ICS calls with hand signals.

Bullseye wasn't working, so we flew the TACAN until the ACLS locked us up at three miles. We started down, trying to work the needles back on lineup. Two miles, 800 feet, and no boat. One mile, 400 feet . . . the RADALT "deedled."

"505," I radioed.

"Three-quarters of a mile," the LSO replied, "on and on, call the ball."

"Clara." No boat. My BN kept up the altitude calls. "600, 500 . . ." Finally, he called the ball. We were about a third of a mile, but were lined up on the island with a right, descending drift. "Wave it off," called Paddles. His call was broken and followed by wave-off lights, just like the simulator during FRS training.

By now I had a slight case of right-wing-down vertigo. I automatically went to military while closing the speedbrakes. I maintained 22 units and began climbing, still at 20 degrees AOB, right wing down.

"No, go straight!" my BN called. I hesitated for a moment by taking out five degrees AOB. I had already decided that we had no chance to make it around the left side of the tower and that we should go right. It was too late to reverse my angle-of-bank.

In those few seconds, I had time to think about the possibility of hitting the helo in starboard delta. I took the chance. I watched the masthead light atop the island disappear under my port wing as we re-entered the goo. We had made it. What we thought would be a normal trap nearly ended in disaster.

"505, climb to 1,200 feet," said the controller, "when comfortable, turn downwind." I knew what to expect and was ready for the next try. However, my signal was "Divert. Steer 030 for 105 miles."

The next day I considered a few relearned lessons. When the ship says they're working minimums, believe them. Quickly rebrief and prepare to fly your best approach. Fly the needles until your crew member – if you have one – tells you to look outside. Wave-off on the *left* side of the island if possible. Don't try to get on the Boss's list of memorable passes. ◄

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BROWNSHOES IN ACTION COMIX

"The kind real aviators like"

Contributed by Lt. Ward Carroll

"Just like his last ten passes: low flat all the way, overpowered in close, four-wire on the fly, no-grade."

The CAG LSO noticed a disturbing trend in one of the second-cruise lieutenants...

The LSO debrief was a bit unorthodox as the young aviator in question was forced to empty his navbag...

"What's this? Does this tape belong to you?"

"Yeah. I listen to it during alerts. What about it?"

It was only a hunch...

"SDO, play this tape *backwards*, if you please."

(Fortunately, the Coffee Mess Officer had had the foresight to procure a tape deck for the ready room with backwards-play capability.)

Bingo...

"RMZXYCTZ ERP - Spot the deck - - Pull power in the wires - EEP OP - Ignore the LSO..."

Subliminal messages were the culprit...

"Thanks, Paddles. I owe you one."

"Just keep it off the ramp and stick with safe music, shipmate."

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A Pilot's Version

The Landing Signal Officer is my shepherd,
I shall not crash.
He maketh me to land on green runways;
He waveth me off the rough waters.
He restoreth my confidence;
He leadeth me to safe landings for his name's sake.
Yea, though I come stalling into the grove at sixty knots, I shall fear no evil, for thou art with me – thy words and thy paddles, they comfort me.
Thou preparest a deck before me in the presence of mine enemies, thou attacheth my hook to a wire; my deck space runneth over.
Surely, safety and caution shall follow me all my days in the Fleet; I will dwell in a fool's paradise forever.